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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,511	10/07/2003	Manucheher Shirmohamadi	DEICER	5031

7590 02/22/2007  
MANUCHEHR SHIRMOHAMADI  
SUITE 200  
3254 ADELINE STREET  
BERKELEY, CA 94703

EXAMINER
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NGUYEN, HOANG M

ART UNIT	PAPER NUMBER
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3748

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/680,511

Applicant(s)

SHIRMOHAMADI, MANUCHEHER

Examiner

Hoang M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Applicant's amendment dated April 24, 2006, has been fully considered.

Applicant has argued that the newly added limitations "applies a perpendicular force to the power line displacing it laterally" overcome the applied reference. The Examiner agrees but a new ground of rejection has been made based on newly discovered references from further searches.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6, 10-11, 16-18, are rejected under 35 U.S.C. 102(b) as being anticipated by US 6660934 (Nourai et al).

Nourai et al discloses a method and apparatus for preventing ice deposits on electric cables P comprising an apparatus including an electric motor 30 and battery 80 for storing energy, a control module and monitoring means 70 for triggering the device 10 to release the cable (halt operation of the device 10) when needed to vibrate the cables and breaking the ices.

Claims 1-2, 6, 10-11, 16-18, are rejected under 35 U.S.C. 102(b) as being anticipated by US 5411121 (LaForte et al).

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LaForte et al discloses a method and apparatus for preventing ice deposits on electric cables 3 comprising an apparatus including helical wire 5 for storing energy, a control module and monitoring means for triggering the device 11 to release the cable (halt operation of the device 11) when needed to vibrate the cables and breaking the ices.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6518497 (Allaire et al) in view of US 5411121 (LaForte et al). Allaire et al discloses a method and apparatus for preventing ice deposits on electric cables comprising an apparatus including an electric motor 22, a control module 48, a magnetic clutch 26, and torque sensor 50 to store elastic energy in the cables, then triggered the clutch 26 to release the cable when needed to vibrate the cables and breaking the ices. Allaire et al does not disclose the force is perpendicularly acting on the wire laterally. LaForte et al discloses a method and apparatus for preventing ice deposits on electric cables 3 comprising an apparatus including helical wire 5 for storing energy, a control module and monitoring means for triggering the device 11 to release the cable (halt operation of the device 11) when needed to vibrate the cables and

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breaking the ices. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the energy module in Allaire et al as taught by LaForte et al to drive a wire from the outside for the purpose of shaking the wire for de-icing. Regarding claims 3-5, 7-9, 12-15, 18-20, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the energy module in Allaire et al to generate and store energy using different methods and apparatus for the purpose of achieving appropriate levels of stored energy.

Claims 3-5, 7-9, 12-15, 18-20, are further rejected under 35 U.S.C. § 103(a) as being unpatentable over either LaForte et al or Nourai et al. LaForte et al or Nourai et al discloses all the claimed subject matter as set forth above in the rejection of claim 1, but does not disclose different energy generating methods and apparatus as claimed. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the energy module in LaForte et al or Nourai et al to generate and store energy using different methods and apparatus for the purpose of achieving appropriate levels of stored energy.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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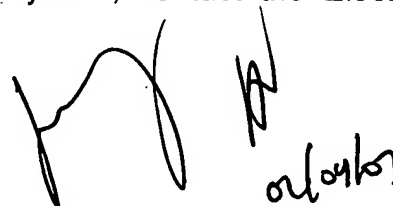
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'H. Nguyen' with a date '2/9/07' written below it.

HOANG NGUYEN  
PRIMARY EXAMINER  
ART UNIT 3748

Hoang Minh Nguyen  
2/9/2007